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**From:** CN=William Batschelet/OU=R8/O=USEPA/C=US  
**Sent:** Tue 12/4/2012 9:49:53 PM  
**Subject:** Fw: Data Narrative from TAL  
[USGS DRO and GRO results.xlsx](#)  
<http://pubs.usgs.gov/ds/718/>  
(embedded image)

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----- Forwarded by William Batschelet/R8/USEPA/US on 12/04/2012 02:49 PM -----

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**Date:** 12/04/2012 02:34 PM  
**Subject:** Data Narrative from TAL

Everyone,

I extracted and created a small table of the USGS-TAL results for DRO and GRO and accompanying quality control data. That information is in the attached file called "USGS DRO and GRO results.xlsx".

These data are extracted from the USGS Data Series Report, Table 7 that can be found at the url <http://pubs.usgs.gov/ds/718/>. See "Data Downloads", last file called "Tables.xlsx", Table 7.

We determined that the USGS GRO acidified sample results should be used for comparison. (See appended table, column D that indicates acidified/not)

To summarize the sample comparisons, we determined that the following USGS and EPA samples compare the best:

USGS environmental sample 1 and its replicate (as shown in attached table) collected starting at 14:10 are contemporaneous with EPA samples EPAMW01-0412 and EPAMW01d-0412 collected at 14:09. The timing of the GRO samples are well matched between the two agencies. The timing of collection of the EPA DRO sample may have taken place before the collection of the USGS DRO sample by about 15 minutes.

USGS environmental sample 2 and its replicate collected at 18:15 on 4/24/2012 are contemporaneous with EPA sample EPAMW01-0412-10 collected at 18:21. These samples started and ended at approximately the same time so the timing of collection of the GRO and DRO are very well matched.

Talk to you tomorrow afternoon.

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Here is part of the data narrative from the file on the FTP site

| Lab Sample ID | Client Sample ID | Date          | Time |
|---------------|------------------|---------------|------|
| 280-28131-1   | 431525108371901  | 2nd 4/24/2012 | 1830 |
| 280-28131-4   | 431525108371901  | 4/24/2012     | 1330 |

#### GC Volatiles / GRO - SW846 Method 8015B

The 8015B Gasoline Range Organics analysis was performed on both hydrochloric acid preserved volume and unpreserved volume as requested by the client. The preserved volume was logged under samples 280-28131-1 through 280-28131-8, while the unpreserved volume was logged under samples 280-28131-9 through 280-28131-16 for clarification. Both sets of results can be found in this report.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to elevated levels of Gasoline Range Organics (C6-C10), samples 431525108371901 (280-28131-3 & 280-28131-11) and 431525108371901 (280-28131-4 & 280-28131-12) had to be analyzed using a reduced aliquot size equivalent to a 2X dilution. The reporting limits have been adjusted relative to the initial aliquots used.

Surrogate a,a,a-Trifluorotoluene was recovered outside the QC control limits in the analysis of the following samples, as detailed below (limits 82-110%). Evidence of matrix interference is present; therefore, corrective action is deemed unnecessary. The unreported surrogate Chlorobenzene was recovered in control, and Chlorobenzene and a,a,a-Trifluorotoluene are added using the same surrogate mixture, indicating that the extraction was successful. It appears that target analyte present in the sample co-eluted with the a,a,a-Trifluorotoluene peak.

431525108371901 2ND SAMPLE (280-28131-1) recovered a,a,a-Trifluorotoluene at 0%  
431525108371901 2ND SAMPLE REPLICATE (280-28131-2) recovered a,a,a-Trifluorotoluene at 0%  
431525108371901 2ND SAMPLE (280-28131-9) recovered a,a,a-Trifluorotoluene at 0%  
431525108371901 2ND SAMPLE REPLICATE (280-28131-10) recovered a,a,a-Trifluorotoluene at 0%  
431525108371901 (280-28131-11) recovered a,a,a-Trifluorotoluene at 275%  
431525108371901 (280-28131-12) recovered a,a,a-Trifluorotoluene at 0%

The analyst noted that surrogate a,a,a-Trifluorotoluene eluted outside the retention time window on the confirmation column for sample 431525108371901 (280-28131-11). This retention time shift was taken into account when reviewing the sample for target compounds by shifting the expected retention window for target analytes by the same magnitude and direction as that observed for the surrogate.

The MS/MSD could not be reported for batch 280-117310, due to a poor purge. Method precision and accuracy have been

verified by the acceptable LCS/LCSD analysis data.

The MS/MSD analyses associated with batch 280-117506 were performed on the unpreserved volume for sample 431525108371901 (280-28131-12), as requested. The MS/MSD exhibited percent recoveries outside the QC control limits for Gasoline Range Organics (C6-C10) and surrogate a,a,a-Trifluorotoluene. Percent recoveries and relative percent difference (RPD) data could not be reliably calculated for Gasoline Range Organics (C6-C10) due to elevated concentrations present in the parent sample. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount. Method precision and accuracy has been verified by the acceptable LCS/LCSD analysis data; therefore, corrective action is deemed unnecessary.

The MS/MSD analyses associated with batch 280-117914 were performed on the hydrochloric acid preserved volume for sample 431525108371901 (280-28131-4), as requested. The MS/MSD exhibited the matrix spike duplicate (MSD) percent recovery outside the QC control limits for Gasoline Range Organics (C6-C10). Method precision and accuracy has been verified by the acceptable LCS/LCSD analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

#### GC Semivolatiles / DRO - SW846 Method 8015B

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to limited sample volume, the following samples had an initial aliquot volume slightly below the nominal aliquot volume of 1000 mL. Therefore, the analysis of these samples had to be performed with slightly elevated detection limits. The reporting limits have been adjusted relative to the initial volume available.

431525108371901 2ND SAMPLE (280-28131-1) had an initial volume of 988.1 mL

431525108371901 2ND SAMPLE REPLICATE (280-28131-2) had an initial volume of 982 mL

431525108371901 (280-28131-3) had an initial volume of 949.5 mL

431525108371901 (280-28131-4) had an initial volume of 983.5 mL

431525108371901 (280-28131-6) had an initial volume of 940.9 mL

No other anomalies were observed.